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NPIC/R-83/62

ICBM LAUNCH COMPLEX, SHADRINSK, USSR

25X1D

This report is in response to a request for additional information concerning the ICBM Launch Complex near Shadrinsk (Figure 1) which was provided by photography from KEYHOLE [REDACTED]. Specifically requested was interpretation in regard to the possibility of construction of hardened launch facilities at this complex and a comparative study with Launch Complex "D" at the Tyura Tam Missile Test Center.

The two launch areas at the Shadrinsk complex are road served, under construction, and have different configurations than other ICBM launch areas identified to date. The progress of construction appears to be compatible with the eventual development of a hardened or semi-hardened launch facility. Also present at the complex is a rail-and road-served complex support facility and a rail-to-road transfer point. Two SAM sites, previously identified, are located in the vicinity of the complex.

LAUNCH AREA A
[REDACTED]

25X1A

Launch Area A (56-08N 63-51E), located 6.5 nautical miles (nm) by road southeast of the transfer point, is served by an access road that extends 1.5 nm north from the complex main road (Figure 2). Analysis of the stereo photography covering the area has revealed that it consists of a large excavation secured by a roughly rectangular fence that measures approximately 1,420 by 1,230 feet. This enclosed area is significantly smaller than the secured portions of typical Yur'ya-type launch areas identified to date. It is, however, similar in size to the secured area at Launch Complex "D" at Tyura Tam. Poor photographic coverage and heavy ground scarring at Launch Complex "D" at Tyura Tam preclude a comparison with Launch Area A at Shadrinsk other than noting the similarity in their general size. The excavation measures approximately 1,080 by 360 feet, with the long axis oriented on an azimuth of approximately 330 degrees. The northeastern facing of the excavation

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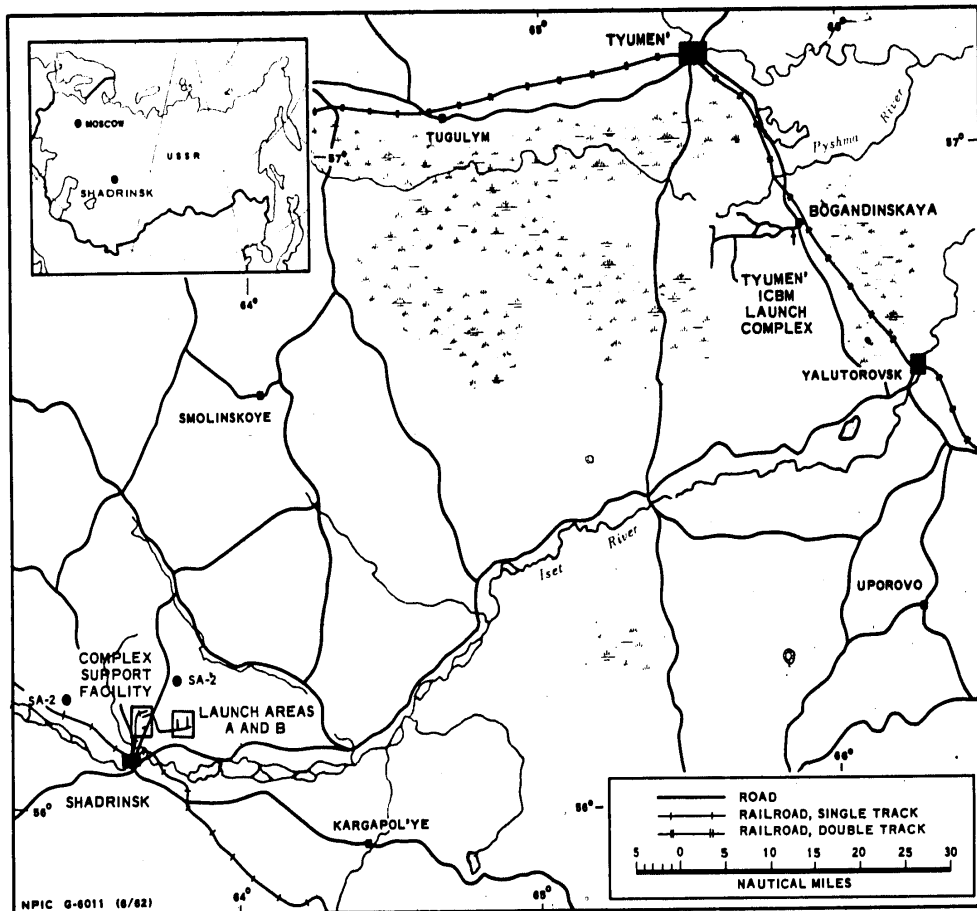


FIGURE 1. AREA ORIENTATION MAP.

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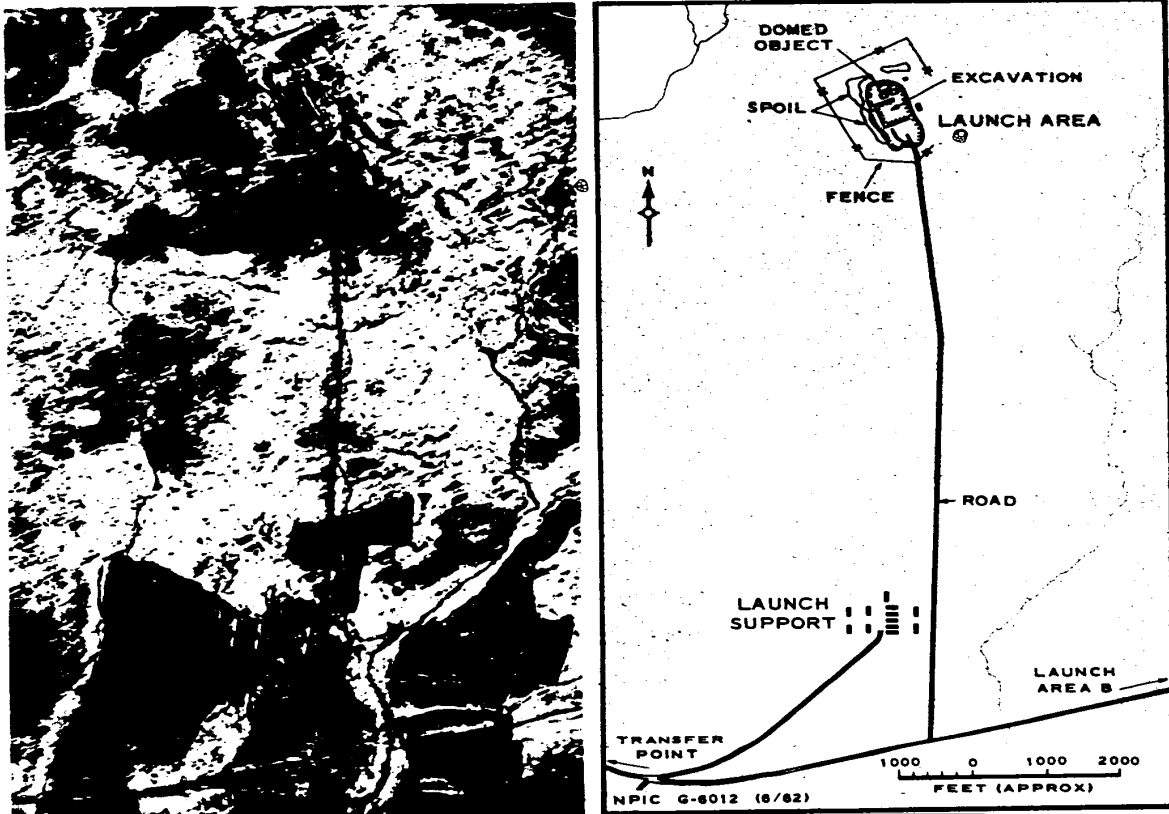


FIGURE 2. LAUNCH AREA A, SHADRINSK

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appears to be almost vertical, whereas the opposite side appears to have a more gentle slope (Figure 3). The deepest portion is nearly in the center of the pit, measures approximately 285 by 185 feet, and is estimated to be 20 to 30 feet deep. No precise determination of the depth can be provided at this time. The southeast end of the pit contains several irregular terraces and a construction road that extends from the access road down to the deepest portion of the excavation. Another construction road leads west-northwest from the bottom of the pit to an area within the fence where spoil is being dumped.

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FIGURE 3. ARTIST'S CONCEPTION OF THE EXCAVATION AT LAUNCH AREA A, SHADRINSK.

Located in the northwest end of the excavation is an unidentified, elliptical domed object that measures approximately 125 by 95 feet and may be a temporary structure. This object extends above ground level. Two rectangular structures adjacent to the southeast side of the domed object may or may not be an integral part of it. The highest portion of these two structures is lower than the domed object and is close to ground level. The overall dimensions of this grouping is approximately 185 by 170 feet. Outside the excavation, but inside the fenced area, are two structures. One of these structures is centered near the northeast side of the pit and measures approximately 65 by 40 feet. The other is located east of the domed object and measures about 40 feet square. At least one vehicle or piece of equipment is identified in motion near the pit. Several knolls within the pit indicate that the excavation work probably will continue. No estimate can be made as to the state of completion, because details of a completed site of this type are unknown.

25X1D [REDACTED] revealed a clearing at Launch Area
25X1D A at Shadrinsk, and [REDACTED] revealed an
25X1D excavation, but not so extensive as that identified on [REDACTED]
25X1D [REDACTED]

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The launch support area, located near the junction of the access road and the complex main road, now contains 12 buildings measuring approximately 125 by 35 feet.

LAUNCH AREA B

Launch Area B (56-10N 64-03E), located in a wooded area 5 nm east of Launch Area A, is 12.7 nm by road from the transfer point (Figure 4). There are similarities between this launch area as seen on

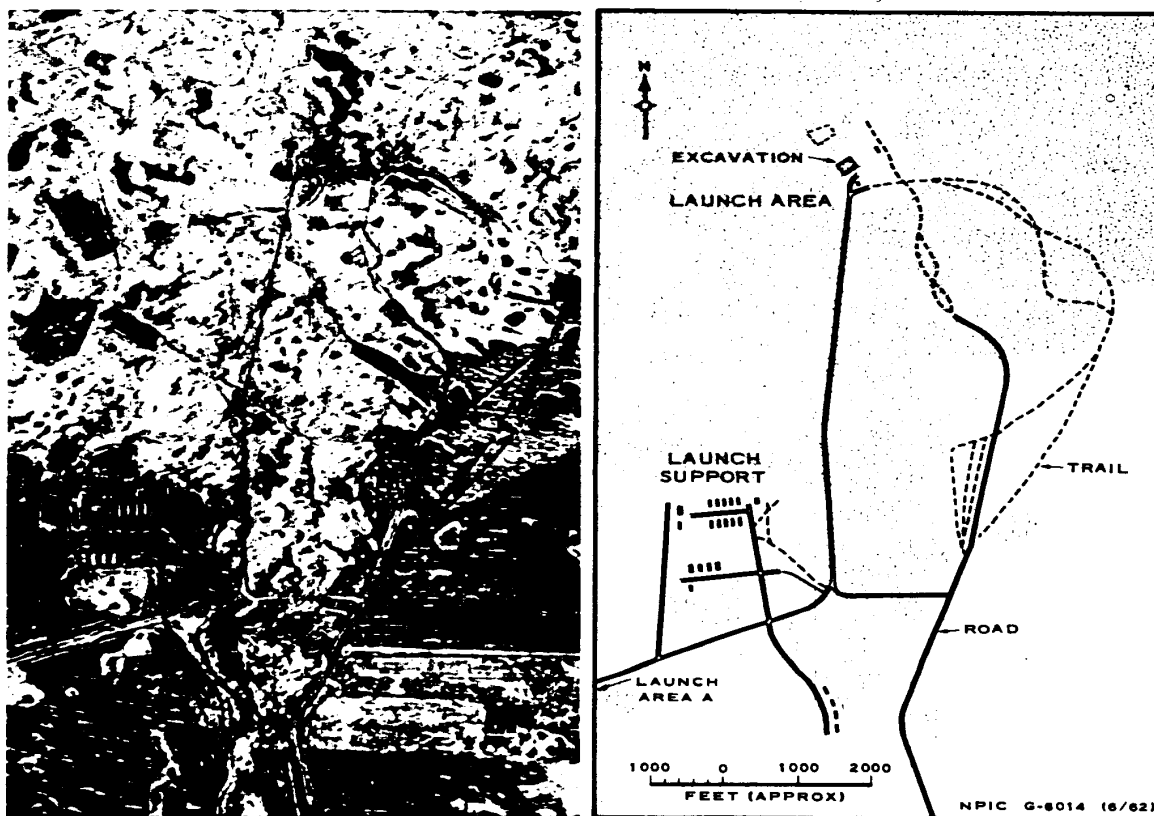


FIGURE 4. LAUNCH AREA B, SHADRINSK

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and Launch Complex "D" at Tyura Tam as it appeared when observed on [REDACTED] The access road extends north 1.1 nm from the complex main road to an area of activity similar in size to that at Launch Area A. An excavation measuring approximately 165 by 140 feet has been started at the terminus of the access road, and scarring indicates that another excavation may have been started 900 feet to the northwest, although this area is not covered by stereo photography. A line projected through the two areas of scarring is oriented on the same azimuth as the long axis of the excavation at Launch Area A. Two buildings are located nearby: one measuring about 125 by 40 feet, and the other about 100 by 40 feet.

The launch support area is located 5,700 feet south of the launch area, near the junction of the access road with the complex main road. The area contains 18 buildings, 4 of which measure approximately 150 by 55 feet and 14 of which measure 110 by 40 feet. Four smaller buildings are located 2,200 feet south of the launch support area and measure about 80 by 65 feet.

COMPLEX SUPPORT FACILITY

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[REDACTED]
The Complex Support Facility (56-08N 63-40E) is served by a rail spur that branches north-northeast from the Sverdlovsk-Kurgan rail line at a point just east of the Shadrinsk Railroad Yards and Shops and continues to the rail-to-road transfer point (Figure 5). Road service to the support facility is provided by several roads that branch west from the main road leading from Shadrinsk to the village of Mogil'skoye.

A spur branches southeast from the main spur line at a point 2.3 nm north of Shadrinsk and immediately separates into four sidings. The turning radii of these sidings are approximately 1,000 feet. The sidings are approximately 600 feet apart and, north to south, are 2,630, 3,025, 3,755, and 3,050 feet in length. Located between the rail sidings are 17

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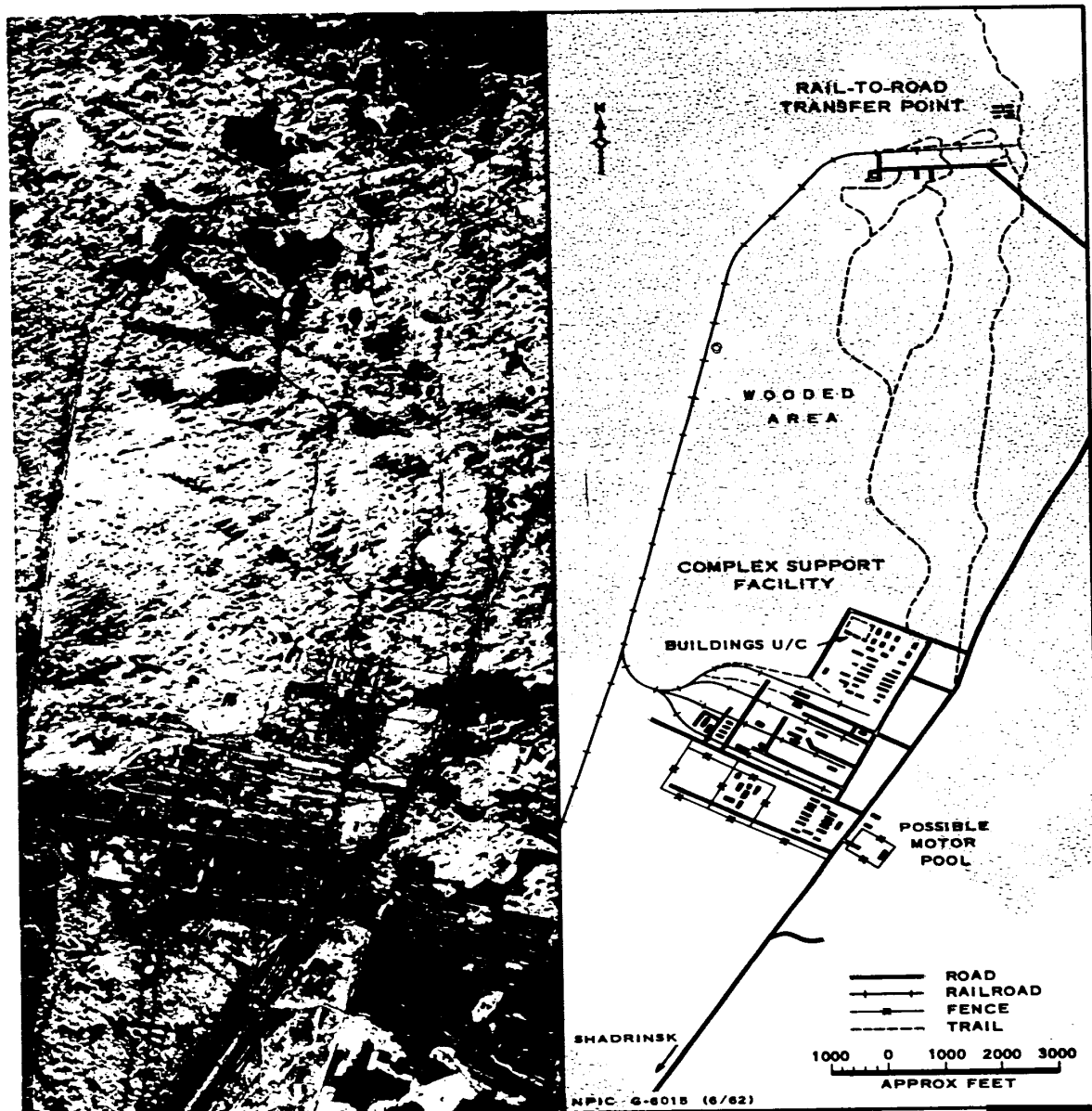


FIGURE 5. COMPLEX SUPPORT FACILITY AND RAIL-TO-ROAD TRANSFER POINT, SHADRINSK

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buildings, the longest of which is a shedlike structure measuring approximately 250 by 80 feet. A batch plant is located between the two northern rail sidings, and open storage is prevalent throughout the area. This area appears to function simply as a construction and logistic support facility for the complex. North of the rail sidings is a barracks area consisting of 10 barracks measuring about 150 by 35 feet, 9 administrative buildings, and 11 apartment-type buildings measuring approximately 190 by 50 feet that are newly constructed. A similar barracks area south of the rail sidings contains 16 buildings approximately 135 by 35 feet. A storage area located west of this barracks area contains seven buildings and open storage areas. A possible motor pool is located across the road from the Complex Support Facility.

RAIL-TO-ROAD TRANSFER POINT

The transfer point (56-10N 63-41E), located at the terminus of the main rail spur, is approximately 1.7 nm north of the Complex Support Facility (Figure 5). The rail portion of the transfer point is approximately 3,100 feet long, and the road portion is approximately 2,100 feet long. The road is approximately 340 feet south of the rail portion of the transfer point. Six small buildings are located near the northeast corner of the transfer point.

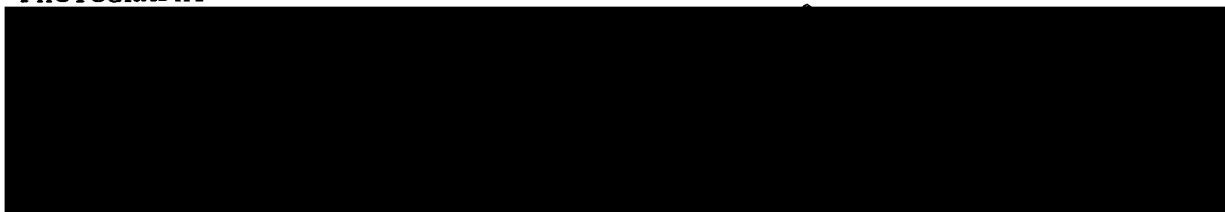
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REFERENCES

PHOTOGRAPHY

25X1D



MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0156-24A, 2d ed, Oct 59, scale 1:200,000 (SECRET)

SAC. US Air Target Chart, Series 200, Sheet 0156-25, 1st ed, Jan 59, scale 1:200,000
(CONFIDENTIAL)

RELATED DOCUMENTS

NPIC. NPIC/R-69/62, ICBM Launch Complex Shadrinsk, USSR, May 62, (TOP SECRET CHESS
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REQUIREMENT

CIA. DDI/RR/E/R-47/62

NPIC PROJECT

JN-120/62

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